

**Interior Columbia Technical Recovery Team meeting #13, February 5th and 6th , 2002
Portland, OR**

Members present: McClure, Schaller, Petrosky, Carmichael, Howell, McCullough, Cooney, Hassemer, Johnson, Utter

Non-members present: Carson, Holzer, Moran

- I. Summary statistics for steelhead population watersheds-** Members review packet, prepared by Damon Holzer, of various habitat metrics within draft population watersheds such as: kilometers of spawning reach, watershed area, percent forest cover, precipitation, temperature, and elevation, and a distance matrix to other spawning aggregates.

Several areas are designated as spawning/rearing by streamnet or smolt density data which lie outside current draft populations:

Columbia tribs downstream of the Deschutes (Winter): Including Threemile, Mill, Chenoweth, Major, Catherine , Jewett, Dog and Mosier Creeks and Little White Salmon River.

Proposed Designation: Because these streams probably never met the minimum spawner criterion (> 500 spawners) for an independent population, include all streams into one dependent population. Members will review information and assumptions used by the Biological Review Team in their designation of the ESU boundary with Lower Columbia Steelhead in this area to clear up questions about the relatedness of fish on either side of the boundary, i.e. Hood River and White Salmon fish.

Columbia tribs in between the Deschutes and the John Day (Summer): Including Frank Fulton and Spanish Hollow Creeks.

Proposed Designation: Because of proximity to the mouth of the Deschutes, and their small production, these tribs are most readily included in the Deschutes population.

In cases such as this, the lower limits of spawning in the core area (in this case, the Deschutes River) will be used to calculate distance between populations even though dependent, “satellite” areas in the population may lie closer to other populations. These scattered spawning or rearing areas are represented in the “connectivity” metric attached to distance/straying considerations.

Columbia tribs above John Day (Summer): Including Rock Creek and its tribs Squaw and Quartz Creeks. These streams are listed as independent steelhead streams in the SASSI report, but are not included in streamnet or smolt density maps. David Johnson called Dan Rawding (WDFW, Vancouver) who reported no known information / surveys on these streams.

Hell’s Canyon tribs (Summer): Including Redbird, Captain John, Granite, Sheep, Wolf, and many other Creeks.

Option 1: Because the entire Hell’s Canyon complex probably met the minimum number of spawners criterion historically, include these streams with those above Hell’s Canyon Dam in an independent, historic population.

Option 2: Alternative approach would be to treat these small tributaries as a collective dependent population, with production being sustained or periodically re-established via straying from upstream or nearby functioning populations.

Middle Salmon tribs (Summer): Tributaries to the Salmon River in between the Upper Salmon Independent Population (East fork upstream) and the Lower Salmon dependent population (North fork downstream) excluding the Lemhi and Pahsimeroi Rivers. This includes Iron, Warm

Spring, Hat, Lyon, Morgan, Challis, Garden, Bayhorse and Cow Creeks, as well as scattered mainstem spawning.

Option 1: Because this area may have met the minimum spawner criterion historically, list these streams collectively as an independent, historic population.

Option 2: Alternative would be to treat these streams as a dependent population area, assuming that fish returning from upstream or adjacent (e.g. Upper Salmon, Pahsimeroi) populations sustained production in these tribs.

Upper Columbia tribs (Summer): Including Yakima tribs Ahtanum and Weitas Creeks, Marion Drain and Columbia tribs such as Moses Coulee. These streams will be discussed in the Washington Steelhead subgroup.

Beginning with the options described above, TRT regional workgroups will review available information and provide recommendations to the full TRT for each of these areas

II. Review of steelhead population identification uncertainties

Walla Walla Basin- The TRT discussed the previous decision to consider two populations in the Walla-Walla system - the Touchet and Walla Walla Rivers. After a review of new genetic information, and due to sufficient geographic separation, these two populations will be considered separate.

Klickitat Basin – Discussion of evidence for winter / summer run split. Dan Rawding (WDFW, Vancouver) reported several thousand summer fish spawn from the mouth to Castile Falls (RM 64) or above, depending on status of ladder. In the winter of 2000/01, around 2500 winter run fish crossed Bonneville, 1000 of which entered Hood River. A large proportion of these fish are likely returns from hatchery releases of summer run steelhead into the Klickitat. Of the 1500 remaining, many entered the Klickitat and spawned from the mouth to Lyle Bridge (RM 30). The two runs are not genetically distinct, according to current analyses, however there is some question about the integrity of the winter run samples.

Lower Snake – Separation of Asotin and Tucannon basins into separate populations?

Although they are separated by a significant distance, the Asotin Creek population does not appear genetically distinct from the Tucannon. This area will be considered one population (with at least two important subcomponents – Tucannon and Asotin) until more information is obtained. This population will also include the previously mentioned Snake River tributaries in between the two basins: Alpowa, Penewawa, Meadow and Alkali Flats Creeks.

III. Discussion of population boundaries

Representing populations of mobile animals by polygons on a map has many inherent problems. The stream reaches outside the spawning regions (and therefore outside current population polygons) are also vital to the salmonid lifecycle and deserve consideration. Land areas of watersheds and water resources above natural barriers are important aspects of salmon habitat even though salmon do not exist there. Other important areas are common to many distinct populations (such as the Columbia River or Pacific Ocean) and cannot be attributed to one. Additionally, a polygon around an entire basin or group of basins may ignore important substructure within the population, and not emphasize known areas of historic (and potential) habitat.

Because of these considerations, the TRT has decided to create several maps for each species in the population identification exercise:

1) Populations are groups of interbreeding individuals. The TRT has used the downstream extent of a groups' spawning reach to define the populations spatially. One map should define the population by lines (as opposed to polygons) showing the extent of current and historic spawning.

2) Populations were delineated hierarchically, dividing large groups first through genetics and geography (such as the entire Clearwater Basin) and proceeding on to divide these areas into distinct populations with other information when available. A second map should describe this, perhaps using color schemes to show the relatedness between independent populations.

- 3) A third set of maps should depict the area of influence around a population, including:
- a) Rearing and migration areas (extending to the confluence with a major river shared with other populations, such as the Salmon River)
 - b) Potential habitat
 - c) The entire watershed

IV. Genetics subgroup report – Paul Moran and Fred Utter present / discuss latest genetic analyses for steelhead population identification. Discussion of resident vs. anadromous O. mykiss total pedigree studies in Snow Creek and the Imnaha River.

V. Update on steelhead dispersal curve – Rich Carmichael presented the final analysis of hatchery stray recoveries. 5 stock groups met the criteria for the study (see Dec. 2002 minutes): Wallowa and Big Canyon releases (20 miles apart), Sawtooth and Pahsimeroi hatcheries (50 miles apart) and the Deschutes hatchery. Setting aside the high stray rates of certain stocks into the Deschutes system as a unique case, the fish showed high fidelity at these distances ($\leq 1\%$ strays). More data may be found in an Imnaha trapping study not yet accessed.

VI. Break into subgroups- The group broke into Washington, Oregon, and Idaho subgroups to begin drafting the steelhead population document and plan for its completion after the meeting.

VII. Discussion of drafting methods – Ways to include potential population substructure within draft populations during pop. id. exercise. Options:

- 1) Put off substructure considerations until the upcoming discussions of capacity
- 2) List all streams within a population watershed marked with the streamnet or smolt density “spawning/rearing” designation
- 3) Create criteria to define a stream worthy of substructure consideration, such as a minimum length of available habitat
- 4) Use drafters' judgment / local knowledge to identify important streams within a population worthy of further investigation

VIII. Future Meetings

March 12th and 13th, 2003 - Portland, OR

April 2nd and 3rd, 2003 - Portland, OR

May 12th and 13th, 2003 - Portland, OR

June 3rd and 4th, 2003 - Location TBA

XI. Tasks

1) All Members must post their steelhead population identification drafts on docushare by February 24th

2) Damon will work on integrating draft population areas maps with subbasin planning maps for comparison